



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,303	09/11/2003	Nobumasa Suzuki	P24195	3578
7055	7590	09/19/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			DOE, GRACE S C	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/659,303	SUZUKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Grace SC Doe	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/12/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. Receipt of the IDS is acknowledged and meets the requirements of 37 CFR 1.97 and 1.98.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show figure 7(a) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f). The attempt to incorporate subject matter into this application by reference to Japanese Patent Application No. P2002-267300 is therefore ineffective.

5. The disclosure is objected to because of the following informalities: reference characters "1" and "1A" are both used in the specification to designate the vertebra body plate. Examiner suggests rephrasing "vertebra body plate 1 (1A)" as "vertebra body plate embodiments 1 and 1A".

Art Unit: 3732

6. The disclosure is objected to because of the following informalities: "vertebra body plates 1A having a symmetrical shape with the vertebra body plate 1" is unclear. Examiner suggests Applicant rephrase as "vertebra body plates 1A having the same shape as vertebra body plate 1". Appropriate correction is required.

7. The disclosure is objected to because of the following informalities: the phrase beginning with "and the corner portion C' corresponding to a pedicle arch vertebra 5A of the vertebra has a shape provided with the protruding portion 11 protruding to a side of the pedicle of arch of the vertebra 5A and an approximately point symmetrical shape around the intersection point O" is unclear. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scharf (US 6,682,563). Scharf teaches a rhombic plate (See Figures 3 and 5) symmetrical about a point in which a first diagonal connects opposing acute angles and a second diagonal connects opposing obtuse angles (See Figures 3 and 5). At least one hole is provided on the first diagonal or second diagonal line (See Figures 3 and 5; Col. 5 lines 10-18). Although Scharf discloses at least one spike, V-shaped in cross section, it does not expressly disclose the location of the spikes as being along the diagonal lines (See Figures 1, 2 and 3; Col. 4, lines 54-67; Col. 5, lines 1-7).

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to relocate Scharf's spikes along the diagonal lines because Applicant failed to specify that locating the spikes on the diagonal lines provides an advantage, is used for a particular purpose, or solves a stated problem. In fact, Applicant noted in his specification that the "spikes 7 may be arranged on the line M, or may be slightly displaced from the line M [or N] within an allowable range." One of ordinary skill in the art at the time of the invention, furthermore, would have expected Applicant's invention to perform equally well with spikes located towards the center of the vertebrae plate, near the diagonal lines, because it performs the same function of stabilizing the plate relative to the vertebrae. Therefore, it would have been an obvious matter of design choice to modify Schaf to obtain the invention as specified in claims 1 and 2.

***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

A. U.S. Pat. No. 6,746,450 (Wall) discloses a plate with at least one spike, V-shaped in cross section, near each diagonal line.

B. U.S. Pat. No. 6,514,274 (Boucher) discloses a rhombic plate with at least one hole on the first or second diagonal.

C. U.S. Pat. No. 5,681,313 (Diez) discloses a rhombic plate with at least one hole on the first or second diagonal.

D. U.S. pat. No. 6,602,254 (Gertzbein) discloses a rhombic plate with at least one hole on the first or second diagonal.

E. U.S. Pat. No. 6,656,179 (Schaefer) discloses a plate with at least one spike, V-shaped in cross section, on each diagonal line.

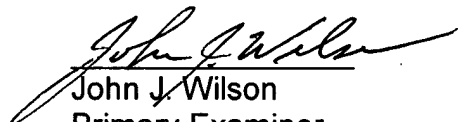
F. U.S. Pat. No. 6,572,622 (Schafer) discloses a plate with at least one spike, V-shaped in cross section, near each diagonal line.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grace SC Doe whose telephone number is (571) 272-2831. The examiner can normally be reached on 8:00am - 4:30pm.

Art Unit: 3732

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John J. Wilson  
Primary Examiner  
Art Unit 3732

  
Grace SC Doe  
Examiner  
Art Unit 3732  
(571) 272-2831